

# Enhancing Therapeutic Impact and Therapeutic Alliance Through Electronic Mail Homework Assignments

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*Homework assignments can enhance therapeutic impact and increase therapy effectiveness by encouraging patients to focus on therapy-related issues between sessions. Computer technology provides a new avenue for reporting, monitoring, and feedback of patient homework assignments through electronic mail (e-mail). In two case examples, e-mail was used as an extension of therapy to enhance patient involvement in treatment. In both cases, patient reports suggest that therapeutic alliance and therapeutic impact improved with the use of e-mail homework reporting. The costs and benefits of the use of e-mail as an adjunct to therapy are discussed.*

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Therapy occurs in the context of a great many distractions within a patient's daily life. Even when patients are highly motivated, the relatively brief amount of time spent in therapy sessions compared with other life events may limit therapeutic gains. One of the challenges therapists face is finding ways to increase therapeutic impact—the likelihood that patients will retain and implement the strategies discussed in their therapy sessions. Therapeutic impact involves capturing and focusing the patient's attention in ways that continue to be memorable and productive despite numerous distractions.<sup>1-3</sup>

The effectiveness of therapy depends, in part, on both the therapeutic impact and the working alliance between patient and therapist.<sup>4</sup> The terms *working alliance* and *therapeutic alliance* have been used synonymously to refer to the collaborative relationship between patient and therapist.<sup>5</sup> Therapeutic alliance has been found to be significantly related to outcome across a variety of types of psychotherapy.<sup>6</sup> The importance of this alliance is underscored by its description as the key variable common to a wide range of therapeutic approaches.<sup>7,8</sup> Collaboration and active engagement in therapy tasks have been described as essential to the

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development of trust between patient and therapist and commitment to therapeutic change.<sup>5</sup>

Many therapies include postsession homework assignments as a way to engage patients actively in the process of therapy. In addition to extending the patient's work beyond the therapy session, homework assignments can provide practice for skill development, increasing generalization of behavior change from therapy to the patient's everyday life.<sup>9</sup> Homework may also help to establish new behaviors that will consolidate and maintain treatment gains after completion of therapy.<sup>10</sup>

Although homework is viewed as an important part of some therapy approaches, adherence to homework assignments is rarely addressed in research. Evidence regarding the relationship of homework adherence to treatment outcome is mixed. It appears that homework adherence may be more important in improving long-term treatment outcome<sup>11</sup> than in improving immediate treatment outcome.<sup>12</sup> Also, homework adherence may actually increase symptoms at some points in treatment, but may result in a later improvement in adherent patients compared with those who do not complete homework assignments.<sup>13</sup>

Client reasons for not adhering to homework recommendations may provide important information for the therapist to use in treatment.<sup>10</sup> Leung and Heimberg<sup>13</sup> suggested that negative cognitive bias on the part of the patient may contribute to reduced homework compliance; thus low homework adherence may directly relate to the focus of treatment. Additionally, Primakoff et al.<sup>14</sup> pointed out that therapist behavior may be related to homework adherence. Therapists who do not consistently follow up on homework assignments are less likely to generate appropriate patient regard for the activity. Strategies for improving participation in homework by both therapist and patient may increase the potential of homework assignments to enhance therapeutic impact.

Technology has provided new possibilities for increasing therapeutic impact. Computer applications to psychotherapy have a long history. Computers have been used both as the primary means of administering therapy and as an adjunct to cognitive-behavioral treatment. Computer-assisted therapy has been found to produce outcomes equivalent to traditionally administered cognitive-behavioral treatments for panic disorder,<sup>15</sup> depression,<sup>16</sup> and test anxiety.<sup>17</sup> Computer applications have been developed for cognitive-behavioral

treatment of problem drinking<sup>18</sup> and obesity.<sup>19</sup> Potential benefits of computer-assisted therapy include increased attention to monitoring by the patient,<sup>19</sup> cues provided by the computer to practice skills, and increased opportunity for the patient to practice skills in a natural environment.<sup>20</sup> Additionally, studies have found that use of computers with cognitive-behavioral treatments reduces dropout rates and strengthens adherence to treatment recommendations.<sup>19,21</sup>

Electronic mail (e-mail) offers a potential method for increasing therapeutic contact. The therapist can use e-mail to prompt the patient for homework reports and to provide more frequent feedback regarding homework. By putting questions, concerns, and progress into writing, patients have the opportunity to review the accuracy and clarity of their own reports, formulate their problems more clearly, and see their difficulties in a different perspective.<sup>22,23</sup> The capacity to save e-mail allows patients to reread messages at any time, which can reinforce the therapeutic message and help patients recognize more clearly the changes in their own thoughts and behavior over time. The recursive nature of writing encourages reflection, which is an important component of the change process.<sup>23</sup> Furthermore, the patient has the opportunity to describe his or her difficulties "in the moment," which may provide valuable insights.<sup>24</sup>

A number of authors have noted that while e-mail can be a flexible and useful therapy tool, it also raises potential concerns, such as the possibility of unintentional violations of confidentiality.<sup>24-28</sup> Important legal, ethical, and pragmatic questions surrounding the use of electronic mail as a therapy adjunct have been raised in the clinical literature and warrant further study.<sup>22,26,29</sup>

The following case studies describe the use of electronic mail to enhance the impact of cognitive-behavioral therapy. The goal of the intervention was to provide frequent and quick feedback to the patients on their homework as a means of fostering both therapeutic impact and therapeutic alliance.

## CASE STUDIES

**Case 1.** L., a 24-year-old single African-American female, was self-referred for treatment of depression. She had previously attended two single intake sessions, each with a different therapist. She was reluctant to self-disclose, and progress in therapy was slow. L. was severely depressed, but she refused to be evaluated for medication. She was having diffi-

culty sleeping, concentrated poorly in her classes, and had little motivation for schoolwork or other activities. She had a very negative view of herself, including thinking that she was physically unattractive, not as bright as other college students, and uninteresting to other people. She also had a negative view of others, including thinking that her friends were untrustworthy and would abandon her and that no one who really knew her would accept her. She was guarded and avoided letting others know her feelings. She also frequently reported that she “shouldn’t” be depressed and had no right to feel the way she did.

The focus of treatment was her negative cognitions regarding herself and others. The primary homework assignment was for L. to keep a daily journal of her negative thoughts and feelings, with alternative positive thoughts and how those positive thoughts might affect her mood and behavior. L. completed only a quarter of her homework assignments. She reported that she had difficulty remembering the relevance of the homework assignments, even when the purpose was clear to her during sessions. She also reported that she felt the journal was “silly” and highlighted for her that she “ought to be able to change this without help.” Homework assignments became another opportunity for L. to feel as though she had failed. Repeated instruction from the therapist about the importance of the homework to treatment had little impact. During the first 14 weeks of treatment, there were no significant changes in L.’s symptoms.

Following a 3-week break in treatment (between fall and spring semesters), L. was asked to e-mail her journal to the therapist Monday through Friday. She was told that this procedure would allow for more immediate response from the therapist and increased opportunities to learn to use cognitive restructuring skills. For the first 2 weeks, the therapist sent an e-mail prompt if the homework report had not been received by noon. Adherence was very good, and by the end of the first 2 weeks, prompting was no longer necessary. Messages were focused on the relationship between negative thoughts, mood, and depressed behavior. Frequent topics included L.’s avoidance of social activities due to fear of rejection, not completing schoolwork because of fear of failure, and not self-disclosing to friends because of her belief that her “real” self would be unacceptable to others. Replies from the therapist praised attempts at generating positive thoughts and prompted generation of alternatives when none were provided by the patient. The increased frequency of feedback from the therapist ensured that L. was remaining focused on the assigned tasks.

After the institution of e-mail homework reporting, L. quickly began to develop cognitive restructuring skills. Writing about her thoughts, feelings, and behaviors and sending the messages to the therapist enabled her to see the relationship between her negative thoughts and depressed feelings and behaviors. Additionally, she found that expressing her negative feelings, rather than denying that she had them, helped her to cope with them more effectively. She became much more actively engaged in the treatment process. Fre-

quent feedback from the therapist allowed L. to develop cognitive restructuring skills much more quickly than she had previously been able to do. As she gained control over self-defeating thoughts, she became able to try more positive social behaviors, which were quickly rewarded by the responses she received.

By the end of the second 15 weeks of treatment, the patient’s symptoms had improved dramatically. She was participating in social activities and had made one new friend in whom she confided completely. She successfully completed her coursework and graduated from the university. She had made plans to work in Europe after graduation and felt no need for continued treatment.

**Client’s Response.** L. provided the following information regarding her view of using e-mail to report on homework:

The fact that you simply suggested writing you e-mail was really helpful because my biggest obstacle was trusting you and believing that you really cared about what I was saying. Offering that availability through e-mail correspondence allowed me to start to believe that maybe you did care and wanted to help me. Also, it was easier for me at times because at times I could hardly look you in the eye, so I wasted many sessions unable to get the thoughts from my head to my mouth. E-mail allowed me to express myself much easier as well as the comfort of knowing that you really wanted to know how I was doing other than when I sat in the chair in front of you.

Also, it made me feel obligated to write each day, so sometimes when I was not willing to work for myself, I did it because I promised you that I would, and of course it always made me feel better to write. The fact that you responded right away was very helpful. The only negative thing about it that I can think of in hindsight is that it had to be a little stressful for you to respond each day. But if you had not, I would have felt discouraged and let down because I was really vulnerable. It is a great idea only if both therapist and patient are committed to it.

Finally, it was good because I could save your responses and read them when I wanted to. It seemed as though I had trouble remembering everything that you said during our sessions. I was listening to you, but I was not relaxed. I was concentrating so hard that it was difficult to follow everything in the sessions. So writing you on my own “turf” and [in] my own surroundings gave me freedom. It was hard in the beginning, because I could not easily write positive thoughts about myself.

**Case 2.** T., a 19-year-old single Caucasian-American female, was referred by several close friends for treatment of an eating disorder. She was reluctant to enter therapy and was accompanied to the first session by two concerned friends. She was initially very reserved in therapy sessions, made little eye contact, gave brief responses, and said that she would not have come if she had not been “forced” to do so by her friends. She expressed appreciation for her friends’ concern but repeatedly apologized for causing them

to worry. She reported a 1-year history of eating-disordered behavior, which began in the fall of her freshman year after her mother commented that she appeared to have gained weight. Shortly after that incident, she began to purge through self-induced vomiting and took over-the-counter diet pills. She reported frequent dietary restraint, often going for several days at a time with no food. She has never been obese but recalls being teased about her weight by a sister whom she described as "very thin." T. was an athlete in high school but reported that she currently does not have the energy to play basketball, her favorite sport.

Cognitive-behavioral strategies were used to help T. identify and challenge her irrational beliefs regarding weight, perfection, control, and body image. For example, she consistently sought the sensation of hunger, reporting that she felt most "in control" when her stomach was empty. She was encouraged to examine her definition of control. In reality, she was so weak from hunger that she was unable to play sports, which she had previously enjoyed; she had *lost* control since the onset of her eating disorder. She responded well in sessions to cognitive-behavioral interventions, learned to challenge her beliefs, and reported positive changes in her thinking. However, her behavior change was sporadic; she reported a consistent pattern of improving (eating appropriately without purging) immediately after each session for a day or two but then would go back to restraint and purging as the week progressed. She also described an ongoing pattern of eating appropriately on weekends (due to pressure from her friends), but then not eating for the next few days. She said that she always "got back on track" when she came for her therapy appointment but would consistently return to purging and restricting within a few days after each session.

Although she was initially reluctant to self-disclose in the therapy process, she completed suggested reading outside of sessions and followed through with referrals to a nutritionist and a physician. She also kept behavioral records as a homework assignment, which displayed her consistent pattern of improving immediately following a session and then deteriorating. Because she complied with therapy recommendations and responded to cognitive-behavioral interventions within the session, her lack of progress in changing her behavior seemed less an indication of resistance and more a response to the pressures in her immediate environment (e.g., dieting friends, family conflict). Her restricting and purging were entrenched coping mechanisms that enabled her to "tune out" difficult situations. She used alternative strategies in the day or two following her therapy session, but then she quickly fell back into her previous pattern. This pattern continued through the first 8 therapy sessions.

In session 9, T. agreed to begin using e-mail to report her daily progress. This was suggested for two reasons. First, her behavioral pattern showed that she responded best when the therapeutic messages were most salient (immediately after a session); e-mail was a way to extend this effect. Second, she had difficulty self-disclosing in therapy sessions.

She reported expressing herself most honestly and directly to her friends when she wrote them e-mails late at night, and thus it seemed possible that e-mail might enhance the working alliance by fostering greater self-disclosure. T. complied with the recommendation to use e-mail, sending daily updates on both her behavioral progress and her thinking. She also began to discuss family conflicts in greater depth, both in e-mail and in the therapy sessions, and began to see the role that avoidance of problems was playing in maintaining her eating-disordered behavior. Therapist responses encouraged her to challenge her irrational beliefs and reminded her that what she perceived as lack of action (i.e., not eating) was actually an active choice. At the end of the next 9 weeks of treatment, T. had stopped taking diet pills and purged very rarely. She continued to struggle with restricting food as a way of coping with stress, but she now engaged in an active decision process rather than automatically not eating.

**Client's Response.** T. wrote the following reactions to her use of e-mail as an adjunct to therapy:

Although I know I still have a lot of work to do, there has been one strategy that has really kept me motivated and helped me to realize that I want to get better. The ability to keep in contact with my therapist using e-mail was really one of the most helpful concepts she used. I always felt that if I was having a problem that couldn't wait till my next session, I could e-mail her and get through it. Even though I went to therapy once a week there were always different obstacles I would have in between appointments that I had a hard time dealing with alone. Since I could e-mail her, she could help me get one step closer to fully recovering that much sooner.

In going to therapy once a week I also knew there were some things I couldn't express to her right there, or sometimes it was just something I forgot to mention.

I was able to feel that if I slipped and wasn't doing well, there would be someone to reassure me and keep me on track.

E-mail served an important outlet and means of coping for me also. It allowed me to express a lot of my negative thoughts and problems I had during the week. The responses I received allowed me to see my errors in thinking and in turn were more effective in helping me change my eating behaviors.

I think e-mail also created a greater trust for me with my therapist. I know that I could say anything in e-mail and eventually I was able to do the same in my sessions. E-mail was a way for me to be more open and it really allowed me to accomplish more and gain more out of therapy.

E-mail was a great tool for me to use that created a constant connection for me with therapy, which really made life with my eating disorder a lot less difficult. It was a system that let her monitor my progress and my homework from therapy for the week. Just knowing she was checking it every day made me work harder and want to do better.

## DISCUSSION

The cases presented here suggest that e-mail may be an effective adjunct to therapy in two ways. First, it can

strengthen the therapeutic alliance by increasing communication between patient and therapist. Second, consistent with cognitive and behavioral theory, an increased opportunity for practice with feedback appeared to enhance the effectiveness of interventions. However, it is important to emphasize that these are case reports rather than controlled clinical studies. Consequently, it is not possible to conclude that the use of e-mail caused these improvements. Randomized studies are needed to further investigate the efficacy of e-mail as a therapy adjunct.

Both patients were initially reluctant to self-disclose in therapy, and both became more comfortable discussing difficult issues after the introduction of e-mail into the therapy process. It is noteworthy that both patients used the word “trust” in describing their reactions to the use of e-mail and that each saw e-mail as improving the therapy relationship.

E-mail reports enabled the patient and therapist to process lapses as they occurred, limiting their time frame and allowing the patient to quickly “get back on track.” Encouraging a patient to problem-solve as a conflict is happening, rather than after the fact in the next therapy session, maintains a present focus in therapy and encourages active practice of cognitive-behavioral coping strategies at the time the patient is experiencing the stressful situations. The e-mail connection between patient and therapist appeared to enhance both therapeutic impact and working alliance by providing ongoing contact, encouragement, information, and cognitive challenges.

Some unique features of the patients presented should be mentioned. Both of these patients were college students. They were already familiar with e-mail, had easy access to computers, and were comfortable with the medium. Both patients understood the potential limits of e-mail in terms of confidentiality, but they felt the risk was tolerable in comparison with the possible benefit. The potential for loss of confidentiality might make some patients hesitant to use this method. Furthermore, many patients, particularly if they are poor or elderly, do not have access to e-mail.

The use of e-mail as an adjunct to therapy has both costs and benefits. In the cases described, it appeared

to have a positive impact on treatment efficacy; however, it does require an additional expenditure of therapist time. These authors found that e-mail transactions required no more than 10 minutes per day. However, an extra 10 minutes per patient can quickly become excessive in the context of a busy clinical schedule, and therapists are unlikely to obtain third-party reimbursement for this service at the present time. Because it is a relatively new medium, there is not an existing “standard of care” as it relates to therapist e-mail responses. Although e-mail offers the opportunity for daily contact, the time lapse between writing and reading also presents a possible risk if a patient expresses concerns that require immediate intervention, such as suicidal or homicidal ideation. Clearly, there is a need for much more clarification of the legal and ethical implications of using e-mail in therapy.

In using e-mail as a therapy adjunct, it is important to select patients carefully. In both of these cases the patients were reluctant to self-disclose, and e-mail provided another avenue to build the working alliance. It is important that the therapist establish clear limits and boundaries to avoid fostering excessive dependency or unrealistic expectations for immediate responses, especially if using e-mail with borderline or dependent patients. Therapist e-mail responses appear to be most effective when brief and aimed at encouraging the *patient* to take responsibility for solving the problem.

In the cases reported here, e-mail appeared to enhance the therapeutic alliance and strengthen the patients’ commitment and engagement in the therapy process. E-mail assignments appeared to heighten therapeutic impact in two ways: by integrating the patients’ attention to therapeutic goals, strategies, and progress into their everyday routines, and by providing opportunities for practice and strengthening of skills. Clients can review feedback from the therapist as often as they wish. For patients who have basic skill deficits, the increased practice with prompt feedback from the therapist may be especially effective. For patients with persistent negative cognitions, e-mail prompts may overcome negative thoughts regarding the usefulness of homework or the patient’s perceived competency to complete assignments.

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